

ABSTRACT OF THE DISCLOSURE

A new gene therapy entails tumor treatment by introducing an expressible nucleotide sequence for a soluble costimulatory factor, thereby enhancing the response of T-cells to a tumor. *In vivo* expression of the soluble factor overcomes anergy or tolerance 5 to tumor cells and activates T-cells that are infiltrating or surrounding the tumor. A pharmaceutical composition containing such a gene is effective in tumor suppression.